

- FOR FROST PROTECTION, A 2-FOOT BACKFILL IS RECOMMENDED. DIMENSIONS ARE TO THE REINFORCING BAR SURFACE.

## 4 STR 9 3'-9" 2'-9"

- BARS, TOTAL LENGTH
- MARK C & D BARS MAY BE COMBINED TO AVOID SPLICE, THEN MARK C BAR IS  $4^{\prime}-3^{\prime\prime}$  x 9".

ESTIMATED QUANTITIES

(35.0 FT./CORNER) (22.24 FT./LIN. FT.) Ξ  $\exists$  $\mathbb{C}$ YDS.

\*CONCRETE SHALL MEET PA 313 OR 561 SPECIFICATION REQUIREMENTS.
\*MINIMUM SPLICE LENGTH FOR ALL #4 BARS IS 16".
\*STEEL QUANTITY DOES NOT INCLUDE SPLICE LENGTHS.
\*SUBSTITUTION OF GRADE 60 BARS IS PERMITTED.

TOTAL LENGTH OF WALL

**WATERSTOP** 

2

HYDROPHILIC WATERSTOP

NON-METALIC WATERSTOP

(PVC)

LIQUID-TIGHT JOINT

YES

8

= CONSTRUCTION JOINT

LIQUID-TIGHT JOINT OPTIONS

## CONSTRUCTION JOINT OPTIONS

- . IF SLAB AND WALL ARE POURED SEPARATELY, THE SLAB SURFACE MUST BE THOROUGHLY CLEANED WITH WATER AND A WIRE BRUSH. THE SURFACE OF THE JOINT SHALL BE KEPT MOIST FOR AT LEAST 1 HOUR PRIOR TO PLACEMENT OF NEW CONCRETE.
- THE SLAB AND WALL MAY BE POURED AT THE SAME TIME ELIMINATING THE NEED FOR A CONSTRUCTION JOINT.

SLAB CORNER RESTRAINING SL 4-FOOT WALL CORNER DETAILS DETAILS AB OPTIONS SEE PA-025 SEE PA-023 SEE PA-024

GENERAL DESIGN NOTES

- DRAINAGE SHALL BE AWAY FROM THE WALL.
- THE MINIMUM TOP WIDTH OF THE BACKFILL AGAINST OR GREATER THAN THE BACKFILL HEIGHT. THE WALL SHALL BE EQUAL

10

MAXIMUM FOOTING CONTACT PRESSURE IS 800 psf/ft.

DESIGN STRENGTHS: WORKING STRESS DESIGN

CONCRETE  $f_c = 4,000 \text{ psi}$ STEEL  $f_{\rm S} = 20,000 \, \rm psi$ 

(GRADE 40)

WALL DESIGN LOADING: 313 STANDARD - LATERAL SEE SECTION IV OF THE FIELD OFFICE TECHNICAL GUIDE. EARTH PRESSURE VALUES,

MANURE LOAD INSIDE = 65 psf/ft.

9

8

psf/ft.

- \*SOIL BACKFILL LOAD OUTSIDÉ  $\stackrel{.}{=}$  60 psf/ft. \*NO HORIZONTAL SURCHARGE ADDED.
- SOIL BACKFILL DENSITY = 110 pcf.WATER TABLE MUST BE BELOW THE FOOTING ELEVAT

## WALL RESTRAINT REQUIREMENTS:

THICK SLAB, SAFETY FACTOR AGAINST SLIDING 1.5 MIN

4 FEET 3 FEET 2 FEET 1 FOOT 0 FFFT	BACKFILL HEIGHT (OUTSIDE LOAD)
27 FEET 11 FEET NO SLAB NO SLAB	SLAB LENGTH NO INSIDE LOAD
NO SLAB NO SLAB NO SLAB 2 FOOT **	SLAB LENGTH FULL INSIDE LOAD

\*\*MINIMUM SLAB LENGTH OF 2 FEET REQUIRED AND  $\leq$ JST BE TED INTO THE WALL FOOTING.

SLAB POURED WITH WALL FOOTING:

#3 BARS @ 18" SPACING (MINIMUM REINFORCEMENT)

SLAB NOT POURED WITH WALL FOOTING:

#3 DOWEL BARS — 3'-0" LENGTH @ 9'-0" SPACING.

THIS STANDARDIZED DESIGN MUST BE ADAPTED TO THE SPECIFIC WITH THE WISCONSIN DEPARTMENT OF AGRICULTURE, TRADE AND IS FILED AT THE NRCS STATE OFFICE, 8030 EXCELSIOR DRIVE,  $M_{\rm c}$ SITE. SITE. IT WAS DEVELOPED IN COOPERATION CONSUMER PROTECTION. THE DESIGN FOLDER DISON, WI. 53717—2906

MA

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PA-020A

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PA-020A



COUNTY, PENNSYLVANIA

4' HIGH, 8" L-WALL (W/O SURCHARGE)

TJA

Date <u>06/23/0</u>5